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(54) **HEAT EXCHANGER AND BATTERY UNIT
STRUCTURE FOR COOLING THERMALLY
CONDUCTIVE BATTERIES**

USPC 429/120
See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
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(57)

ABSTRACT

A heat exchanger and battery unit structure is provided for cooling battery units (or cells) where the thermally conductive nature of the battery forms a cooling path. The heat exchanger is in the form of a cooling element provided with an engaging device formed on or attached to an outer surface of the cooling plate for receiving and/or engaging with a corresponding engaging portion on a battery unit (or cell). The interconnection between the battery unit (or cell) and heat exchanger creates a mechanical interlock between the two components that results in improved heat transfer properties between the two components.

(52) **U.S. Cl.**

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(2015.04); **H01M 10/643** (2015.04); **H01M**
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